

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Kaiser, et al.

Serial No.: 09/684,305

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Entitled: **IMPROVED CLEAVAGE AGENTS**

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Examiner: Staples, M.

INFORMATION DISCLOSURE STATEMENT LETTER

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Alexandria, VA 22313-1450

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence (along with any referred to as being attached or enclosed) is, on the date shown below, being transmitted to the United States Patent and Trademark Office transmitted via the Office electronic filing system in accordance with 37 C.F.R. §1.6(a)(4).

Dated: March 3, 2011 By: /Jasmine M. Stansberry/
Jasmine M. Stansberry

Examiner Staples:

The citations listed in the attached **IDS Form SB08A** may be material to the examination of the above-identified application, and are therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. §§ 1.56 and 1.97.

Applicants wish to bring to the Examiner's attention that we are not providing copies of US Patents as instructed under 37 CFR 1.98(a)(2). Applicants also wish to note that several references cited herewith are from the European Search Report dated June 20, 2009 in the co-pending European Patent Application No.: 08019704.9, namely:

- Borges, et al. "A Survey of the Genome of the Hyperthermophilic Archaeon, *Pyrococcus furiosus*" (Data Genbank on NLM, U.S. Nat. Lib. of Med.) *Genome Science & Technology*, 1996, Vol. 1, No. 2, pp. 37-46
- WO96/15267; 1996-05-23; 1996-05-23
- Carr, et al. "Evolutionary conservation of excision repair in *Schizosaccharomyces pombe*: evidence for a family of sequences related to the *Saccharomyces cerevisiae RAD2 gene*" *NUCLEIC ACIDS RESEARCH*, vol. 21, no. 6, March 1993, p. 1345-9
- Lyamichev, et al. "Structure-Specific Endonucleolytic Cleavage of Nucleic Acids by Eubacterial DNA Polymerases," *Science* 260:778-783 (1993)

- Harrington, et al. "DNA Structural Elements Required for FEN-1 Binding," *J. Biol. Chem.* 270:4503-4508 (1995)
- Harrington, et al., "The characterization of a mammalian DNA structure-specific endonuclease," *EMBO Journ.* 13:1235-1246 (1994)
- US Patent 5541311; 1996-07-30; Brow, et al.
- Binghui, et al. "Flap endonuclease homologs in archaeabacteria exist as independent proteins" *TRENDS IN BIOCHEMICAL SCIENCES*, ELSEVIER. HAYWARDS, GB, vol. 23, no. 5, '1 May 1998 (1998-05-01)', pages 171-173
- Hwang, et al. "The crystal structure of flap endonuclease-1 from *Methanococcus jannaschii*," *Nature Structural Biology* 5:707-713 (1998)
- Hosfield, et al. "Structure of the DNA Repair and Replication Endonuclease and Exonuclease FEN-1: Coupling DNA and PCNA Binding to FEN-1 Activity" *Cell* 95:135-146 (1996)
- Hosfield, et al. "Newly Discovered Archaeabacterial Flap Endonucleases Show a Structure-Specific Mechanism for DNA Substrate Binding and Catalysis Resembling Human Flap Endonuclease-1" *J. Biol. Chem.*, 1998, Vol. 273, No. 42, pp. 27154-61
- Lyamichev, et al. "Polymorphism identification and quantitative detection of genomic DNA by invasive cleavage of oligonucleotide probes" *NATURE BIOTECHNOLOGY*, NATURE PUBLISHING, US, vol. 17, no. 3, March 1999 (1999-03), pages 292-296

Also, applicants wish to note that the following references cited herein are from the International Search Report dated April 2, 1998 in the related International Application No.: PCT/US1997/021783 filed November 26, 1997, namely:

- Murray, et al. "Structural and Functional Conversation of the Human Homolog of the *Schizosaccharomyces pombe* rad2 gene, Which is Required for Chromosome Segregation and Recovery from DNA Damage," *Molecular and Cellular Biology* 14:4878-4888 (1994)
- Boynton, et al. "Cloning, sequencing, and expression of clustered genes encoding 13-hydroxybutyryl-coenzymeA (CoA) dehydrogenase, crotonase, and butyryl-CoA dehydrogenase from *clostridium acetobutylicum* ATCC 824" *Journal of Bacteriology*. June 1996, Vol. 178, No. 11, pages 3015-3024
- Bult, et al. "Complete genome sequence of the methanogenic archaeon, *Methanococcus jannaschii*" *Science* 273:1058-1062 (1996)
- Harrington, et al. "Functional domains within FEN-1 and RAD2 define a family of structure-specific endonucleases: implications for nucleotide excision repair," *Genes and Develop.* 8:1344-1355 (1994)
- Hiraoka, et al. "Sequence of human FEN-1, a structure specific endonuclease, and chromosomal localization of the gene (FEN1) in mouse and human," *Genomics* 25:220-225 (1995)
- Brosius, et al. "Spacing of the -10 and -35 regions in the tac promoter: Effect on its in vivo activity" *Journal of Biological Chemistry*. 25 March 1985, Vol. 260, No.6, pages 3539-3541
- Borges, et al. "A Survey of the Genome of the Hyperthermophilic Archaeon, *Pyrococcus furiosus*" (Data Genbank on NLM, U.S. Nat. Lib. of Med.) *Genome Science & Technology*, 1996, Vol. 1, No. 2, pp. 37-46

The Examiner is requested to make these citations of official record in this application.

This Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

The Commissioner is hereby authorized to charge any required fees or credit any overpayments to Attorney Deposit Account No.: **50-4302**, referencing Attorney Docket No.: **FORS-04447**.

Dated: March 3, 2011

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